

# M M Abid Naziri

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## About Me

PhD Researcher specializing in **Software Testing** for learning-enabled systems. I develop automated testing techniques for Deep Learning Libraries (**PyTorch**, **TensorFlow**) and **Autonomous Driving Systems** in a simulation environment (**CARLA**). I have reported 94 bugs (74 confirmed) to PyTorch and TensorFlow to date [[list](#)].

## Education

NC State University, PhD in Computer Science (4th year)

May 2027 (Expected)

Advisor: Dr. Marcelo d'Amorim

Award: Graduate Merit Award - Summer 2025

## Research Projects & Publications

**Testing Deep Learning Libraries via Neurosymbolic Constraint Learning**

[ICSE 2026 \(Accepted\)](#)

*M M Abid Naziri*, Shinhae Kim, Feiran Qin, Saikat Dutta, Marcelo d'Amorim

Venue: [IEEE/ACM International Conference on Software Engineering \(ICSE 2026\)](#)

**Misbehavior Forecasting for Focused Autonomous Driving Systems Testing**

[ICSE 2026 \(Accepted\)](#)

*M M Abid Naziri*, Stefano Carlo Lambertenghi, Andrea Stocco, Marcelo d'Amorim

Venue: [IEEE/ACM International Conference on Software Engineering \(ICSE 2026\)](#)

**BugsInDLLs: A Database of Reproducible Bugs in Deep Learning Libraries to Enable Systematic Evaluation of Testing Techniques**

[ISSTA 2025](#)

*M M Abid Naziri*, Aman Kumar Singh, Benjamin Wu, Feiran (Alex) Qin, Saikat Dutta, Marcelo d'Amorim

Venue: [The ACM SIGSOFT International Symposium on Software Testing and Analysis \(ISSTA 2025: Tool Demonstration Track\)](#)

[[pdf](#)]

**Evaluating the Effectiveness of Coverage-Guided Fuzzing for Testing Deep Learning Library APIs**

Submitted

Feiran Qin, *M M Abid Naziri*, Hengyu Ai, Saikat Dutta, Marcelo d'Amorim

[[preprint](#)]

**Evaluating the Effectiveness of Machine Learning to Improve Deep Learning Library Testing**

Submitted

Facundo Molina, *M M Abid Naziri*, Feiran (Alex) Qin, Alessandra Gorla, Marcelo d'Amorim

## Experience

**Senior Software Engineer, Enosis Solutions – Dhaka, Bangladesh**

Mar 2019 – Jul 2022

- Developed scalable web applications using Vue JS, TypeScript, and ASP.NET Core, including a project management tool deployed to 270 employees and a Welder Management system
- Developed desktop applications DesignCalcs and ProWrite for pressure vessel design, adding features, fixing bugs, and creating unit/regression tests
- Managed CI/CD pipelines, configured testing servers, and ensured smooth system operations
- Operated in an Agile development process in a development team of 7 people
- Mentored new recruits, conducted code/design reviews
- Collaborated with clients and team members via JIRA

## Technologies

**Languages:** Python, R, C#, Delphi, Java, C/C++, JavaScript, TypeScript, Bash

**Technologies:** PyTorch, TensorFlow, CARLA Simulator, Docker, Github Actions, ASP.NET Core, React JS, Vue JS, TestComplete, DUnit